

No. 673,142.

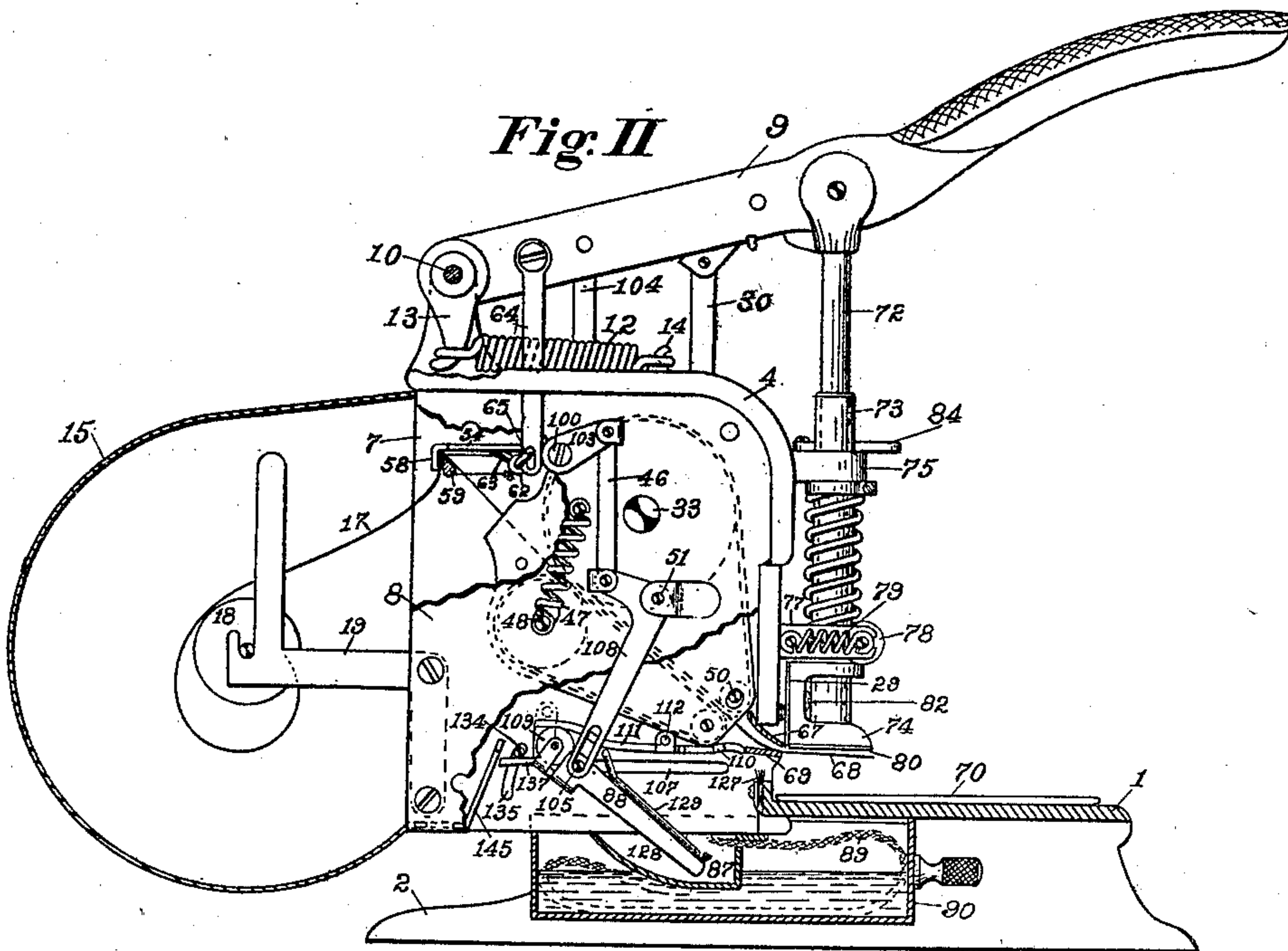
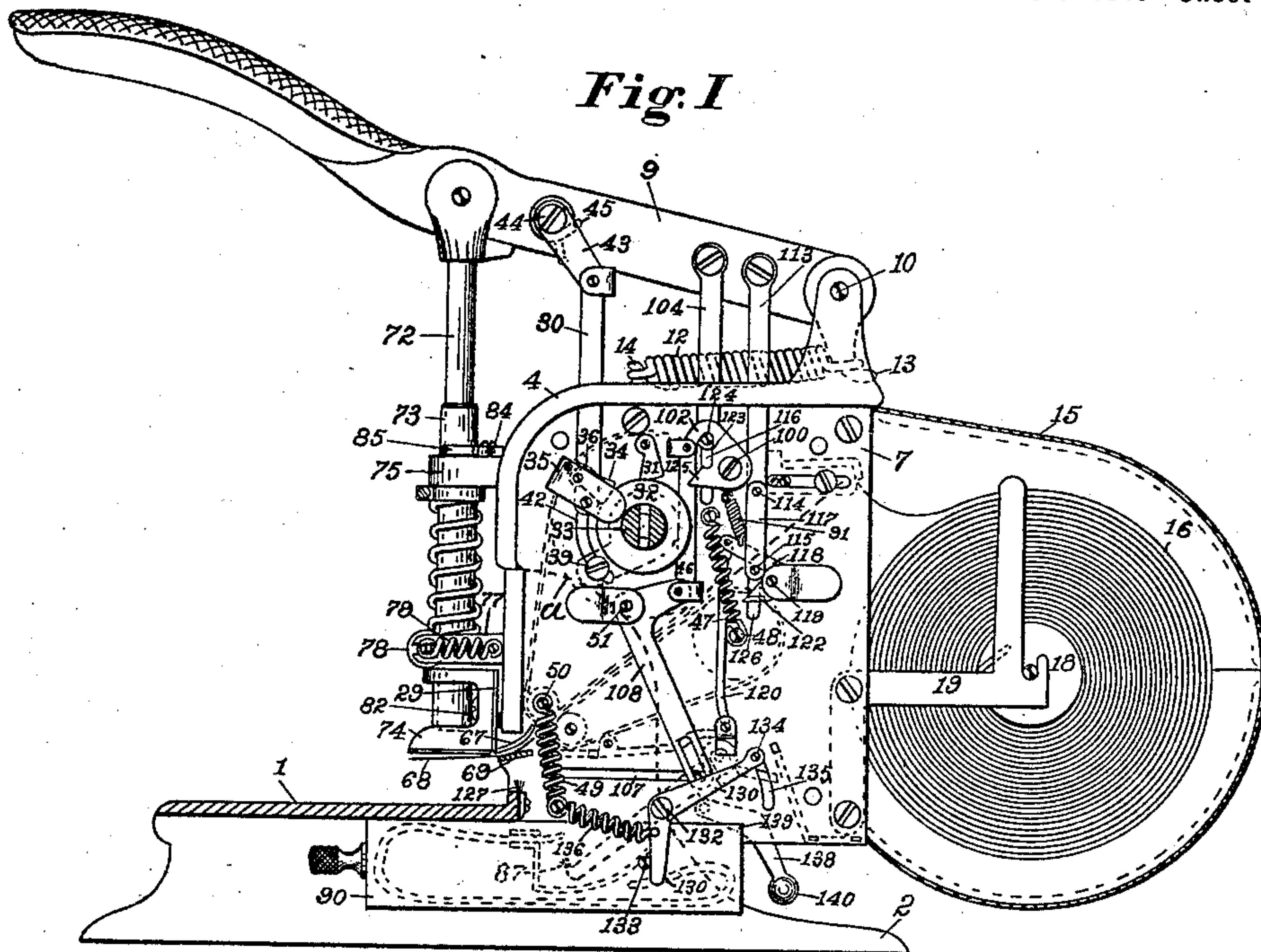
Patented Apr. 30, 1901.

A. H. F. SCHAAR.  
STAMP AFFIXING MACHINE.

(Application filed May 23, 1900.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES:

*P. M. J. Lander,*  
*Elmer Wickes.*

INVENTOR

*Adolph H. F. Schaar*  
BY *J. Richards & Co.*  
ATTORNEYS.

No. 673,142.

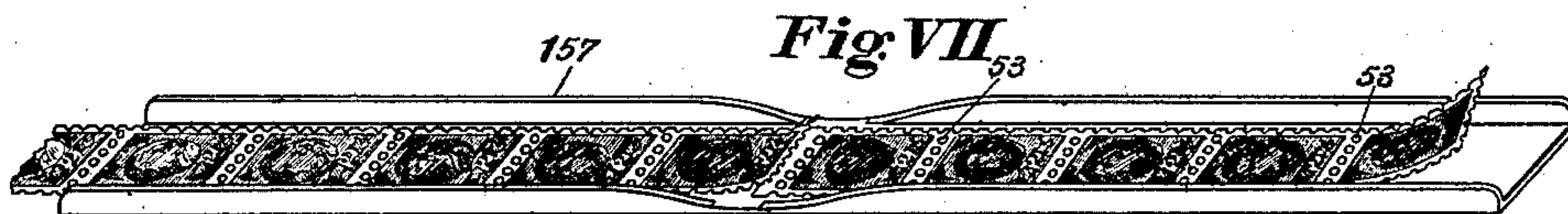
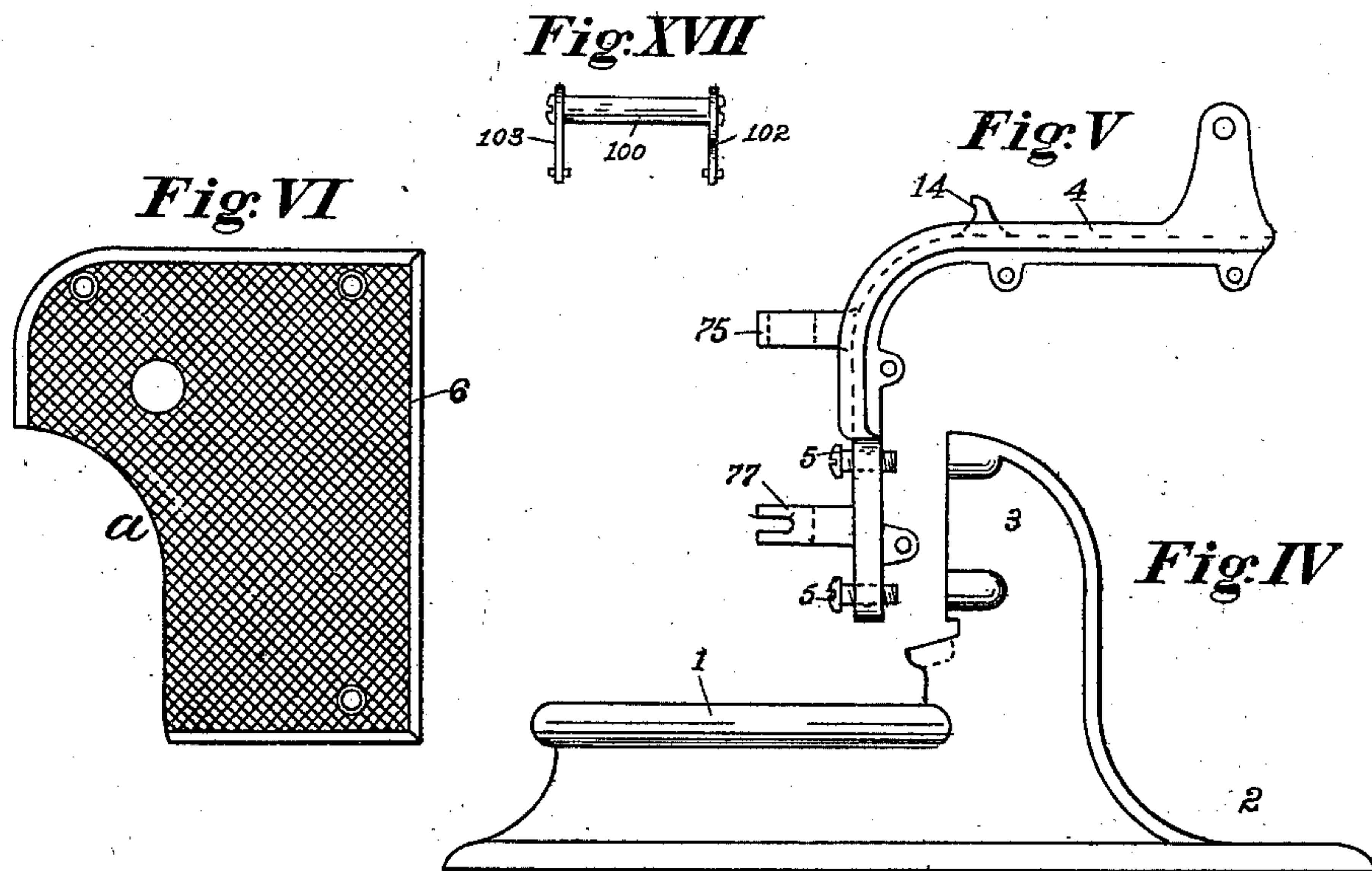
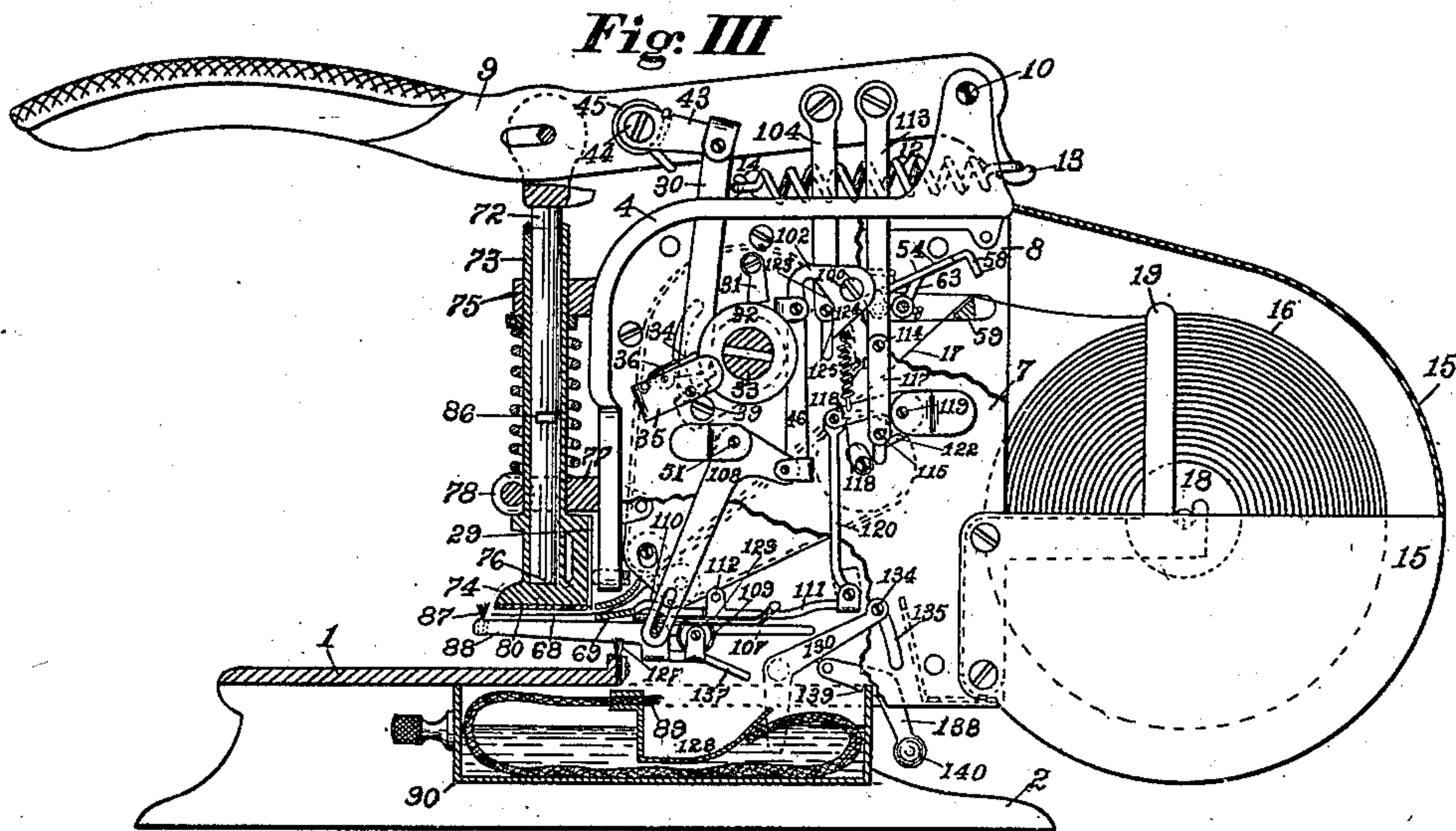
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3 Sheets—Sheet 2.



WITNESSES:

P. W. Lander,  
Elmer Wicker.

INVENTOR,

Adolph H. F. Schaar,  
BY  
J. Richards & Co.  
ATTORNEYS.



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3 Sheets—Sheet 3.

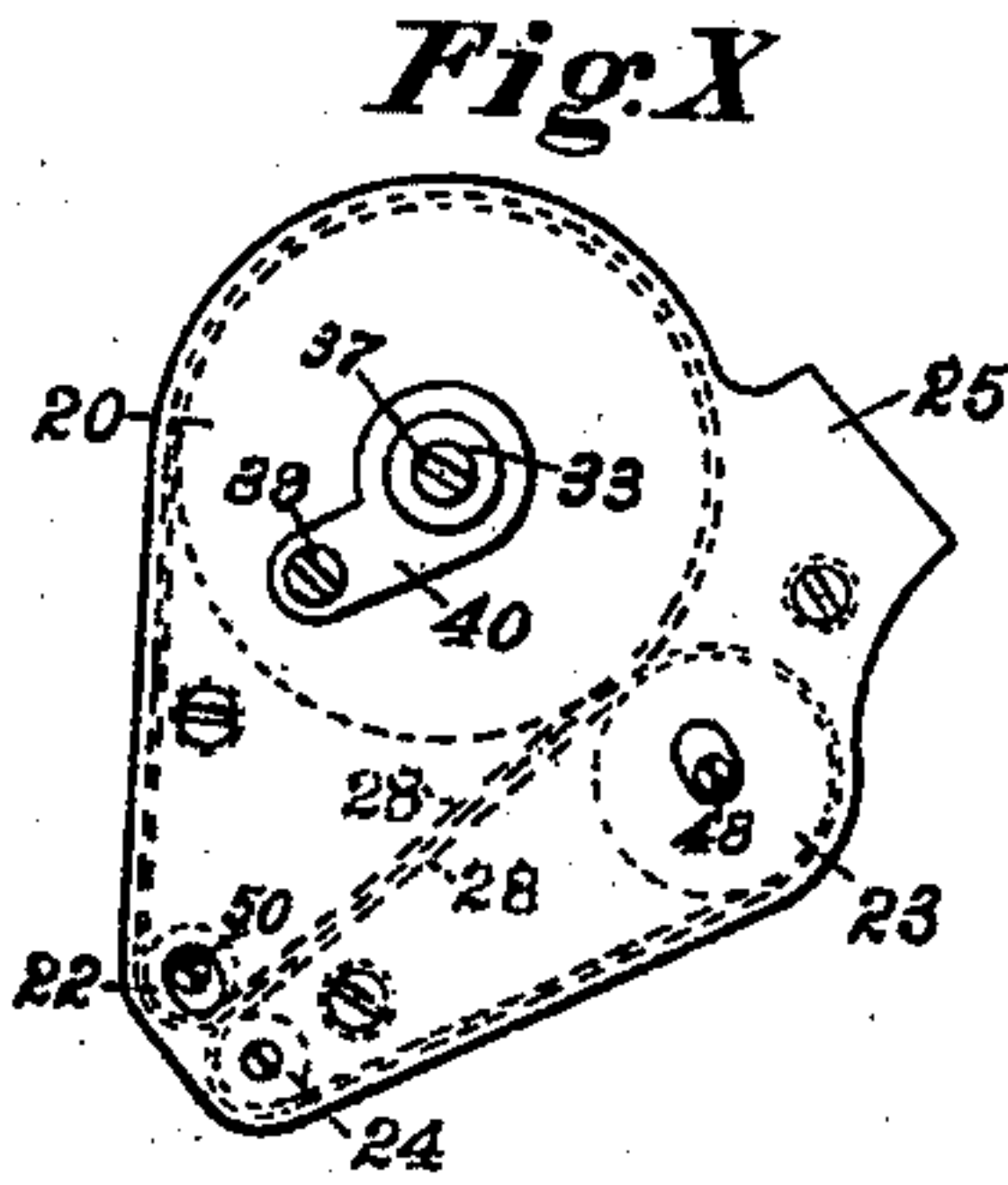


Fig. VIII

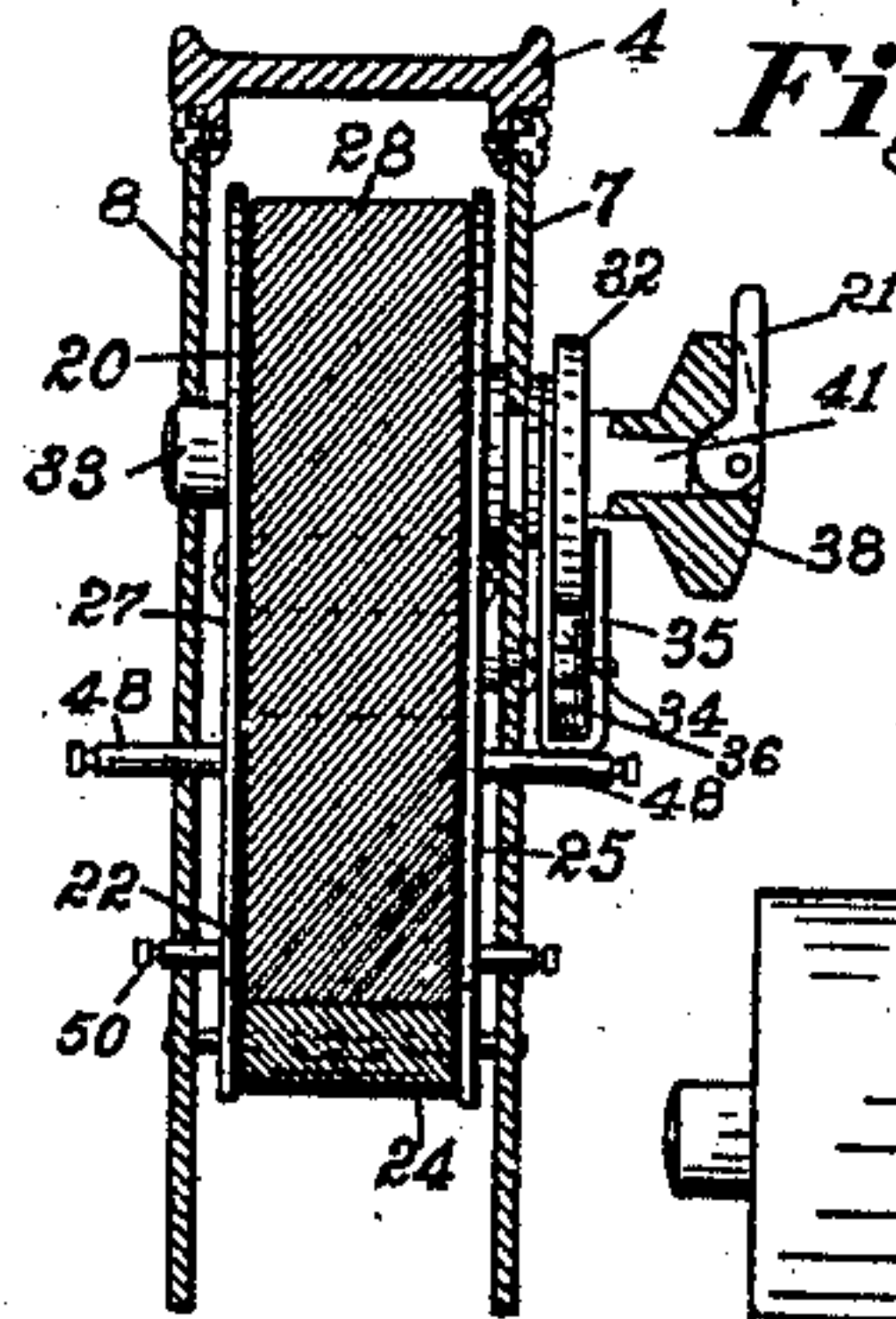
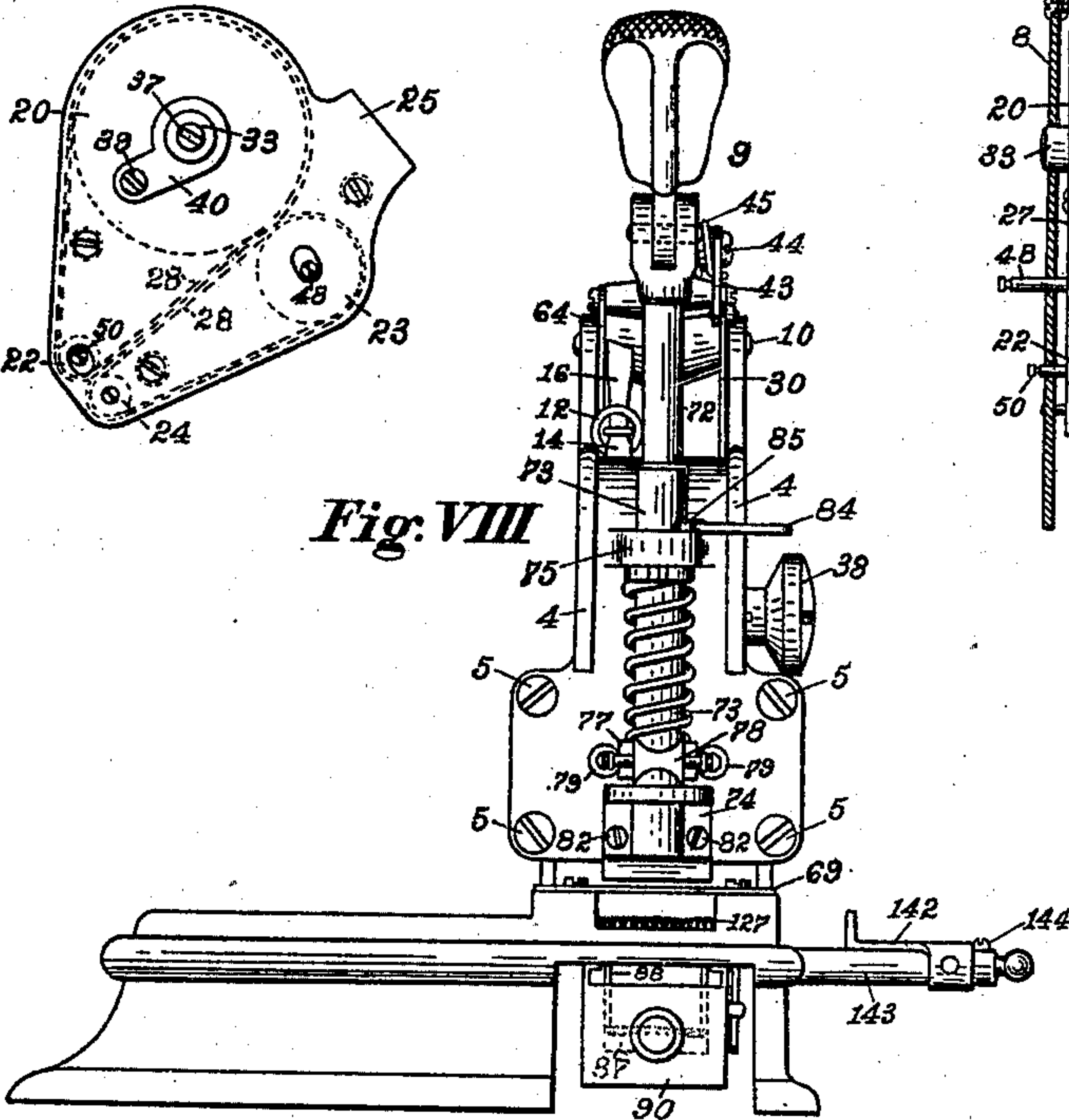


Fig. XI

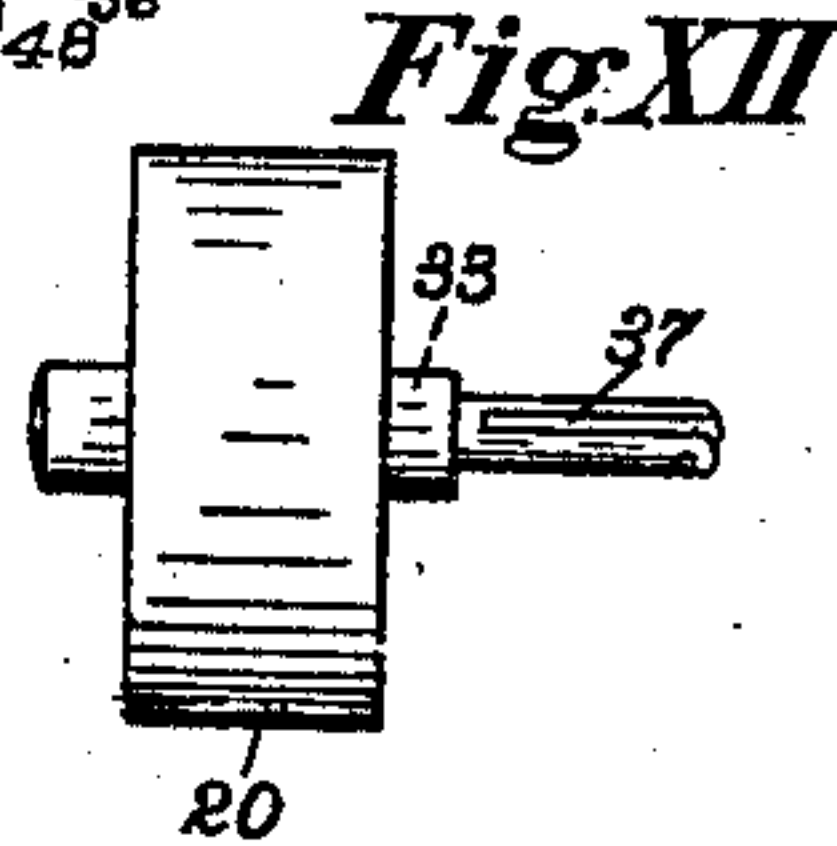


Fig. XII

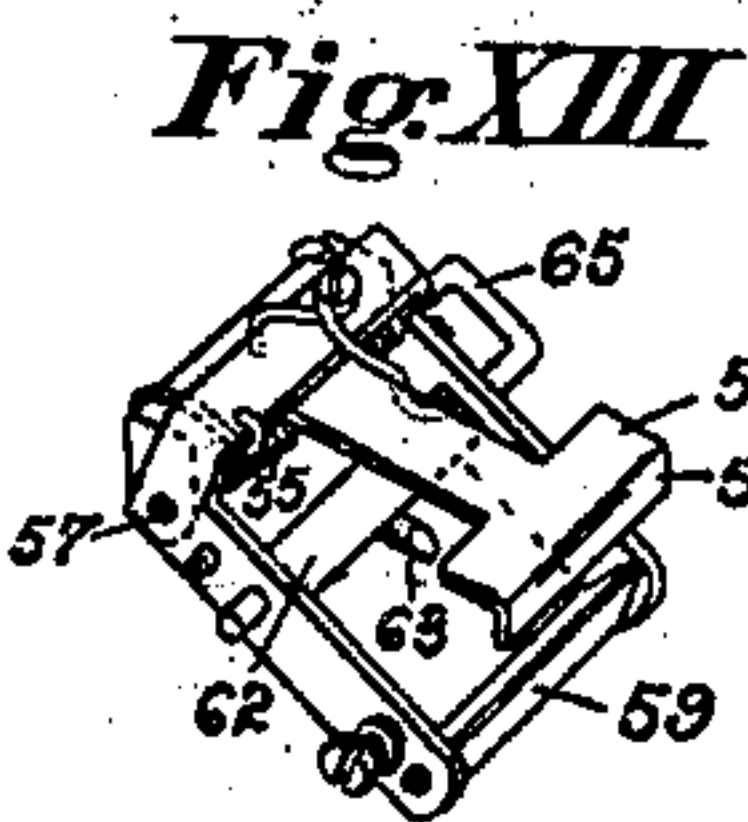


Fig. XIII

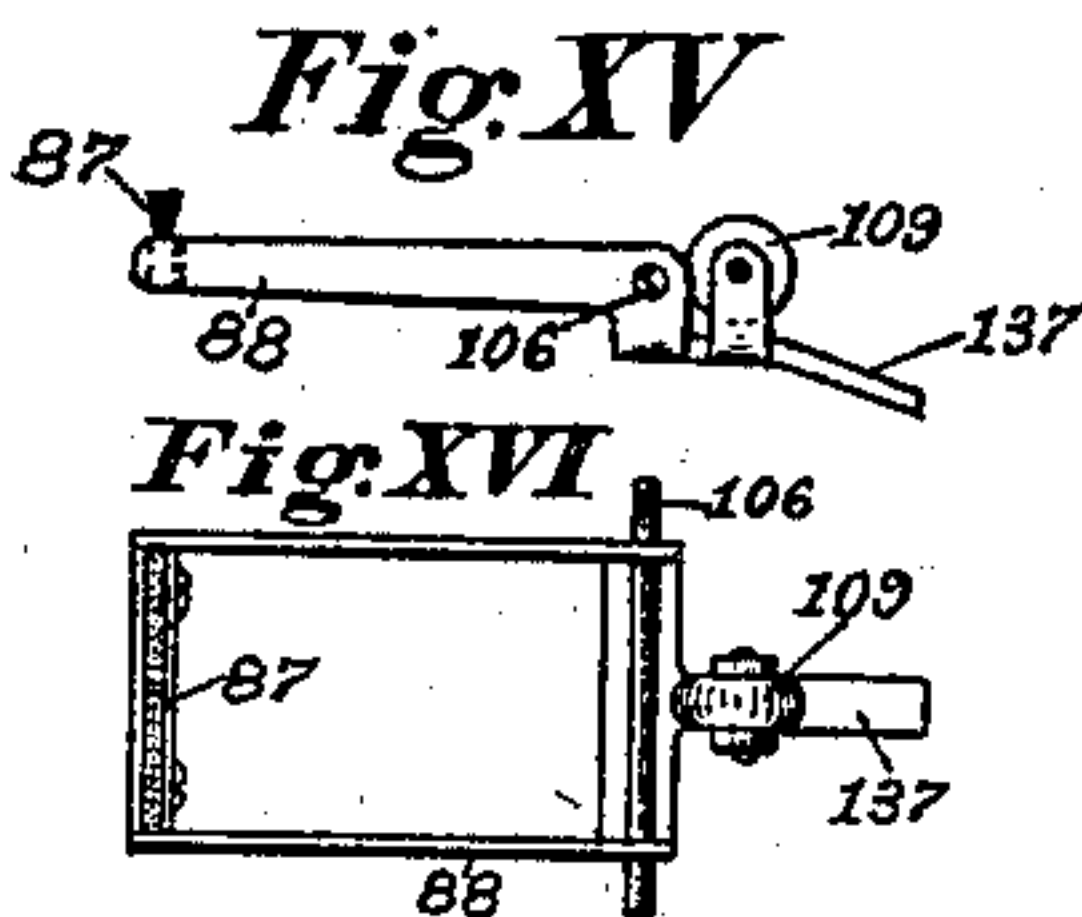


Fig. XV

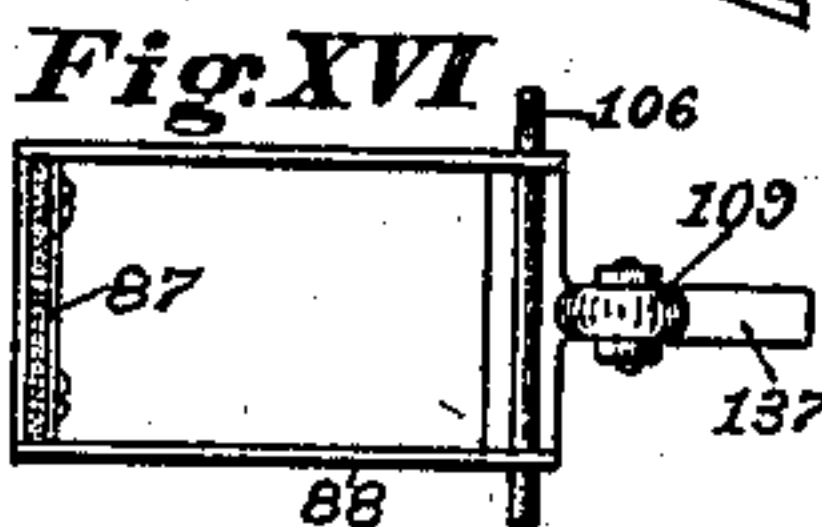


Fig. XVI

WITNESSES:

P. H. J. Lander,  
Elmer Wickes.



Fig. XIV

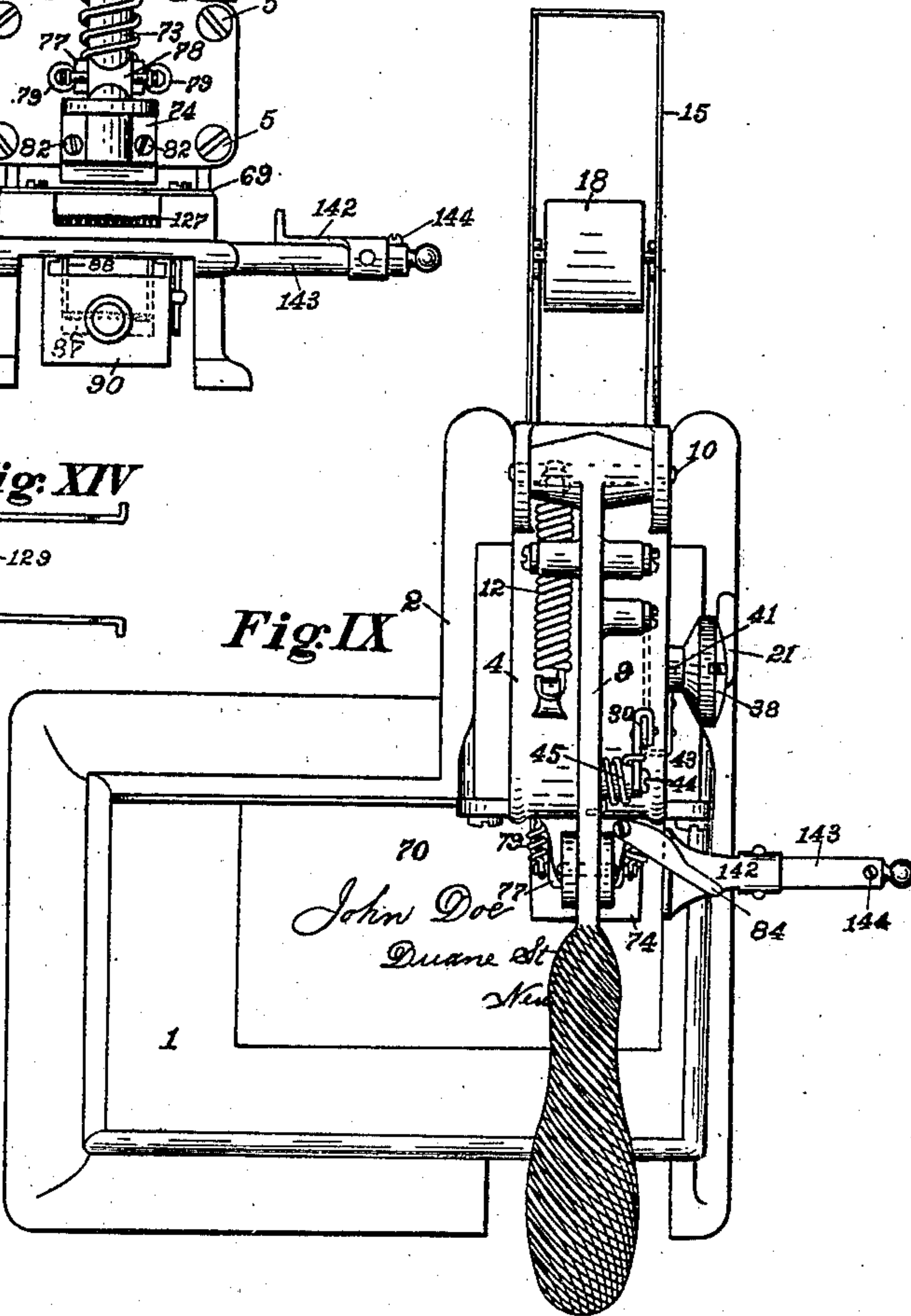


Fig. IX

INVENTOR,

Adolph H. F. Schaar,

BY

A. Richards & Co.  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

ADOLPH H. F. SCHAAR, OF SAN FRANCISCO, CALIFORNIA.

## STAMP-AFFIXING MACHINE.

SPECIFICATION forming part of Letters Patent No. 673,142, dated April 30, 1901.

Application filed May 23, 1900. Serial No. 17,732. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPH H. F. SCHAAR, a citizen of the United States of America, residing at San Francisco, county of San Francisco, and State of California, have invented certain new and useful Improvements in Stamp-Affixing Machines; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to affixing postage or other stamps to letters or documents and to certain improved devices for that purpose.

My improvements consist in an organized machine having the functions of accurately supplying the stamps, severing them from a roll or ribbon, and moistening and applying the adhesive faces all by one motion of an operating-lever; and it consists in the construction, operation, and relations of the various parts constituting this machine, as hereinafter fully described, and illustrated in the accompanying drawings, forming a part of this specification.

The object of my invention is to attain celerity and precision in affixing stamps without the exercise of care and skill.

Referring to the drawings, Figure I is a side elevation of my improved device, hereinafter called a "machine," showing the external working parts on one side and indicating in part by dotted lines part of the internal details of the machine. Fig. II is a view in elevation of the opposite side of the same machine, showing the external working parts on that side, a portion of the main side plate being broken away to expose in part the mechanism in the interior. Fig. III is an elevation of the machine, partially in section, corresponding to Fig. I, but with the operating parts in a different position, as will be hereinafter explained. Fig. IV is a side elevation of the main member or base of the machine with the operating parts removed therefrom. Fig. V is a side view of a principal part of the main framing detached from the base shown in Fig. IV. Fig. VI is a side view of one of the plates to cover and protect the operating parts of the machine. Fig. VII shows in perspective a form employed in preparing the ribbon of stamps ready for use in

the machine. Fig. VIII is a front view of the machine complete. Fig. IX is a plan view of the machine complete. Fig. X is a side view of the device for conveying and advancing the stamps to the affixing mechanism at the front. Fig. XI is an edge view of Fig. X, also of the main side plates in section, and the external mechanism for operatively engaging the driving-pulley, partly in section. Fig. XII is a detail of Fig. XI, showing the driving-pulley of the conveying and advancing mechanism. Fig. XIII is a view in perspective of the stopping and locking mechanism for automatically controlling the forward movement of the ribbon of stamps and by which accurate spacing and registry are produced. Fig. XIV is a plan view of a wiping-bar to drain the brush that moistens the stamps. Fig. XV is an edge view of the brush to moisten the stamps, with some of its connected mechanism. Fig. XVI is a plan view of Fig. XV. Fig. XVII is a top view of an oscillating shaft to operate in part the stamp-moistening mechanism.

Similar numerals of reference are applied to corresponding parts throughout the several figures of the drawings.

The main elements of the machine consist of a dust-proof receptacle for a coiled ribbon composed of stamps, means to convey and advance these one stamp at a time to be severed and affixed, means for accurately registering the stamps to be affixed with the perforations in alinement over the edge of the shearing-bar, said means also automatically controlling the operative movement of the conveying and advancing mechanism, means to moisten the adhesive face of the stamps, and means to sever and apply the stamps, all being actuated by one downward and upward motion of a lever with which all the operating parts are directly or indirectly connected.

Referring first to some of the main parts, these consist of a main base 1, forming a table or platen for the letters or papers to be stamped, provided with angular extensions 2 and standards 3, on which latter the operating parts are sustained. To these standards 3 is attached by the screws 5 a second main member 4, as indicated in Fig. V, and to this member 4 are fastened the side plates 7 and 8, that



provide support for most of the operating parts, and outside of these plates 7 and 8 covering-plates 6 at each side, one of which is shown detached in Fig. VI. This plate is removed in the other figures to enable the details to be seen; but the dotted line *a*, Fig. I, shows where the curved line *a*, Fig. VI, would come, the other outlines of the plate fitting the outlines of the framework.

9 is the operating-lever, pivoted at 10 and held in its upward position when out of use by a coil-spring 12, attached, as shown in Fig. III, to a downward-projecting lug 13 on the lever 9 and a fixed lug 14 on the member 4.

At the rear of the machine is a case 15, adapted to contain a coiled ribbon of stamps 16, that are pasted together in true alinement by the aid of the trough-like form 157. (Shown in Fig. VII.) The ribbon of stamps 17 is rolled on a small drum 18, removably supported by brackets 19, provision being made for a charge of five hundred to one thousand stamps of one kind or as the extent of use may demand. The ribbon 17, composed of postage or other stamps, is drawn from the coil 15 and, passing over the angular bar 59 of the automatic stopping and locking mechanism, is conveyed and advanced by means of the driving-pulley 20, the roller 22, and the friction-pulley 23 and the friction-roller 24 of the conveying and advancing mechanism, disposed in pairs, as indicated by dotted lines in Fig. X. These pulleys and rollers are held between and journaled in two independent side plates 25 and 27, so as to be removable bodily from between the two main side plates 7 and 8. The plates 25 and 27 also furnish a lateral guide for the stamp-ribbon.

Around the driving-pulley 20 and the roller 22 and also around the friction-pulley 23 and friction-roller 24 are ribbons 28 of fibrous webbing in the form of bands contacting with each other, between which the ribbon of stamps 17 is held straight and flat as it is conveyed and advanced to the severing-knife 29.

The pressure required to nip and draw the ribbon 17 is provided for by means of springs 47, attached to the spindle 48 of the friction-pulley 23, tending to press that pulley upward, and springs 49, attached to the spindle 50 of the roller 22, tending to pull that roller downward. The other ends of the springs are attached to studs on the main plates 7 and 8. The springs 47 and 49 are so adjusted that they exert a sufficient pressure between the contacting bands to cause said bands to securely and firmly contact with the ribbon of stamps when in operative engagement therewith. They are mounted in such a position on the main side plates 7 and 8 that they also exert an outward pull to the respective spindles to which they are attached, drawing the bands 28 taut and taking up all slack in the same from whatever cause.

The driving-pulley 20 receives its movement from a pawl friction-clutch actuated by a link 30, connected to the lever 9, as seen

in Figs. I and III. In the absence of the ribbon of stamps the lower band contacts with the upper band and receives motion therefrom by means of friction. When, however, the ribbon of stamps is engaged between the bands and by reason of an inaccuracy in the feed the driving-pulley continues motion after the rear line of perforations in the front stamp 68 is in proper alinement with the edge of the shearing-bar 69 and the stamp-ribbon, as hereinafter described, is automatically stopped and locked by the registering or spacing device, the stamp-ribbon ceasing motion the lower band remains stationary and the upper band, carried by the driving-pulley, slips harmlessly over the stamp-ribbon, as its nip thereon depends upon the correlated motion of the lower band, this nip relaxing the instant the stamp-ribbon is stopped. It will therefore be seen that the conveying and advancing mechanism apart from the work it accomplishes—that of forwarding the stamps—is also so designed and constructed that the bands 28 are automatically maintained in proper adjustment, that the contacting bands automatically adjust themselves to any thickness of paper, that it automatically relaxes operative engagement with the stamp-ribbon the instant the same is stopped, preventing injury to the stamps engaged between the contacting bands and not tearing the stamps engaged between the conveying and the automatic stopping and locking mechanism as under, and that this operative engagement relaxes while the driving-pulley and its respective band are yet in motion.

Referring to the friction-clutch, it consists of the usual disk 32, which is normally loose on the spindle 33 of the drum 20 and is engaged by the cam-pawl 34, held in the lever 35 and pressed into contact by a spring 36. The lever 35 is also loose on the spindle 33 and is operated by the link 30, as before explained.

31 is a common friction-detent to prevent backward movement of the disk 32.

The disk 32 is clutched or fastened to the spindle 33 by a clamping feather or spline 41, pressed inward against the side of the disk 32 by a cam-lever 21, both of these latter being held in a slot 37 in the end of the spindle 33. (Shown in Fig. XII.) The locking position is shown in Fig. XI. When the lever 21 is loosened, then the spindle 33 and the driving-pulley 20 are free to be turned and adjusted by the thumb-wheel 38 and independent of the pawl-clutch. In this manner the ribbon of stamps 17 can be advanced, drawn back, or adjusted by hand. As the distance moved forward by the ribbon of stamps 17 must be as the length of the stamps, one at a time, the movement of the driving-pulley 20 and of the pawl-clutch on the disk 32 by the pawl 34 must be accurate and adjustable, so the arc of movement for the lever 35 is determined by a screw 39, held in plate 40, that turns loosely on the spindle 33, as shown



in Fig. X. This screw is adjustable in the curved slot 42 and forms a downward stop for the pawl-lever 35. As, however, the movement of the lever 9 required for severing and fixing the stamps exceeds what is required for operating the driving-pulley 20, I provide for a modified movement of the link 30 by means of an arm 43 at the top, turning loosely on a pivot 44 and pressed downward by a spring 45, as seen in Figs. III, VIII, and IX. This arm is retained in its lowest position, as seen in Fig. I, by the spring 45 and the knuckle at the elbow. This spring 45 has force enough to depress the link 30 and the pawl-lever 35; but when the latter comes in contact with the stop-screw 39 then the spring 45 yields and the arm 43 turns on its pivot at 44, as shown in Fig. III, and the main lever 9 moves on downward without further movement of the link 30.

The mechanism just described when properly adjusted brings forward the stamps one at a time from the coil 16, but not with the precision required to sever them accurately through the perforated lines 53, and further provision is made to secure accurate spacing or registry, consisting of the automatic stopping and locking mechanism. (Shown detached in Fig. XIII and also seen in Figs. II and III.) This device consists of a pivoted gripper 54, pressed downward by a coil-spring 55, wound around the pin 57, which pin forms an axis for the gripper. At the outer end of the gripper 54 is an angular, wedge-like extension 58, that when the gripper descends laps over an angular bar 59, folding, creasing, and bending the ribbon of stamps 17 over the angular bar 59 at the lines of perforations 53. The gripper 54 is raised by a link 64, connected to the main lever 9, extending down to a crank-shaft 65 on the oscillating bar 62, as shown in Fig. II. When the lever 9 is depressed, this link 64 turns the bar 62 and a pin 63 therein engages and raises the gripper 54, unlocking and permitting the ribbon 17 to be conveyed forward. While the lever 9 is moving upward and the ribbon of stamps 17 is advancing by action of the conveying mechanism the gripper 54 descends and rests on the ribbon of stamps, pressing downward by action of the spring 55. This spring is so adjustably arranged that its tension, while permitting the gripper 54 to bear upon the ribbon of stamps, shall not be sufficient to overcome the structural resistance of the material of the ribbon of stamps, except at the lines of least resistance, caused by the perforations at the divisional lines 53; but the spring-pressure on the gripper 54 is adjusted to overcome such resistance at such lines and as the same come into alinement with the front edge of the angular bar 59. At the instant the lines of perforations come into such alinement the gripper snaps home, folding and creasing the ribbon of stamps over the angular bar. While the gripper is resting on the ribbon of stamps

the main lever 9 continues in its upward movement, releasing the link 64 from operative engagement with the crank-shaft 65, further movement of the link 64 being permitted by the slot in the lower end thereof and shown in Fig. II. When the gripper snaps home, it carries the pin 63 and the crank-shaft 65 back into their normal positions. (Shown in Fig. II.) The automatic stopping and locking operation is so timed that it occurs an instant before the conveying mechanism ceases motion and the main lever 9 reaches its highest or normal position. The conveying mechanism is also so adjusted and timed in its operative movement that it commences motion before the gripper 54 in its downward movement contacts with the ribbon of stamps. The ribbon of stamps is securely stopped and locked from further forward movement by the manner in which it is folded and creased over the angular bar and under the angular form of the gripper, the spring 55 being utilized when the ribbon of stamps is locked to retain the gripper in the "locking" position, not much pressure being required for that purpose.

The upper contacting edge of the angular bar 59 is slightly rounded to prevent it from cutting the stamps at the perforations when engaging them.

The automatic stopping and locking mechanism (contained in an independent frame adjustably secured in the machine, as shown in Fig. I) is so adjusted and secured in the machine that the line of perforations at the rear of the front or terminal stamp 68 shall come into alinement with the cutting edge of the shearing-bar 69 simultaneously with the alinement of the corresponding line of perforations between the stamps engaged in the stopping and locking mechanism, thus determining the position of the end stamp.

From the foregoing description it will readily be seen that the stopping and locking mechanism is automatic, being operatively independent of the conveying mechanism and the operating-lever 9, the perforated divisional lines in the ribbon of stamps coming into alinement over the edge of the angular bar 59 and the spring 55 determining the stopping and locking operation. In this manner accurate registry is obtained.

The ribbon of stamps 17 after passing through the stopping and locking and the conveying mechanism is advanced forward through the chute 67 over a removably-mounted shearing-bar 69, so that the last or end stamp 68 is in position to be moistened, severed, and applied on a letter or other paper 70, resting on the base 1. The last-described operations take place while the main lever 9 is moving upward and returning to assume its normal position and the stamp-head 74 is in its upward or normal position and the moistening-brush 87 has in its rearward reciprocation passed the shearing-bar 69, one stamp always being left exposed and



over the shearing-bar 69 when the machine is at rest. When introducing the stamp-ribbon into the automatic stopping and locking mechanism, the gripper is thrown up by hand and is retained by a spring-detent. (Shown but not marked in detail, Fig. XIII.)

Before proceeding to describe the mechanism for wetting or moistening the stamp I will explain the mechanism of the stamping-stem 73 at the front. This stem 73 is provided with a head 74 of rectangular form, slides in the bearings 75, and is made hollow to receive a rod 72 or plunger adjustably attached at the top to the lever 9, as shown in Fig. III. When the lever 9 is depressed, this rod 72 strikes on the bottom of the bore in the stem 73, as seen at 76 in Fig. III, moving the latter downward to sever and apply the stamp 68, as will be hereinafter further explained. The stem 73 slides through a fixed bearing 75 at the top and in a half-bearing 77 at the bottom and to prevent play or lost motion, that would effect the shearing action of the cutter or knife 29, is elastically held in this lower bearing 77 by means of a roller 78, held and pressed inward by the springs 79, one at each side, as shown in Fig. VIII. On the face of the stamping-head 74 is a smooth plate 80 and at the back the adjustable and removable shearing-cutter 29, held by the screws 82, as seen in Fig. VIII. This latter when the stem 73 is depressed passes the fixed shearing-bar 69, the two severing the stamp 68 after it has been moistened on the bottom in the manner hereinafter described.

To prevent movement of the lever 9 and the stem 73 when the machine is out of use or not adjusted, I provide a pivoted latch 84, that when closed, as in Fig. II, enters the notches 85 and 86 in the stems 72 and 73, thus locking the lever 9 and all parts connected thereto.

To moisten the adhesive faces of the stamps, I employ a brush 87, removably mounted on the independent brush-frame 88, (shown in Figs. XV and XVI,) that by peculiar movements, to be presently described, wets the brush by contacting with the top of a saturated wick 89, adjustably mounted in an elevated position in the removable water-box 90, that is slid in beneath the machine like a drawer, as shown in Figs. I, II, and VIII, the water with which the pan is partially filled being conveyed to said tip by the force of capillary attraction.

Referring to the movement of the frame 88 and the brush 87 thereon and to Figs. II and III of the drawings, the brush is shown in its backward position in Fig. II and in its forward position in Fig. III and is operated by an oscillating shaft 100, that extends across the machine and has the cranks 102 and 103 fastened on its ends. This shaft 100 is operated by a link 104, that connects the crank 102 to the main lever 9, as shown in Fig. I.

The brush-moving devices, consisting of the levers 108 and links 46, connecting to the

cranks 102 and 103, are alike on each side of the machine; but a modified motion is derived from the crank 103, as seen in Fig. I and as hereinafter explained.

The brush-frame 88 is pivoted at 105 on a cross-rod 106, that slides forward and back in the slots 107 in the side plates 7 and 8 at each side of the machine and is moved by the slotted bell-cranks 108, pivoted at 51 and connected by the links 46 to the cranks 102 and 103 on the shaft 100. These levers 108 slide the brush-frame 88 between the two positions seen in Figs. II and III. The pivotal or vertical movement of the brush-frame is produced by a guiding-roller 109, mounted at the rear end of the frame 88, which roller bears beneath a fixed guiding-plate 110 and movable guiding-plate 111, the latter pivoted at 112 and operated by a link 113, connecting to the main lever 9, as seen in Figs. I and III. The hinged guide-plate 111 is not directly connected to the lever 9, because the motion required is intermittent, requiring a pause, provided for in the following manner: The link 113 is provided with two studs 114 and 115 and an outer plate 117 between these studs, forming a slot that embraces the lever 118, pivoted at 119, and provided with an oblique extension 122, engaged by the stud or pin 115. The lever 118 is connected to the pivoted guide-plate 111 by the link 120. This lever 118 has at its bottom an angular face 122, against which the lower stud 115 bears when the link 113 is depressed. When the stud 115 comes in contact with the angular face 122 of the oblique extension or in the position shown in Fig. I, the lever 118 is turned or depressed until the face 122 is vertical. The stud 115 then moves on this face without causing further motion, the guide-plate 111 remaining stationary for a period, while the brush-frame 88 is advanced forward to moisten the stamp 68. The link 113 continues to descend until the stud 115 passes below the angular face 122 of the lever 118. Then this lever is suddenly raised, and by the action of the spring 91 the link 120 raises the movable guide-plate 111 and frees the brush-frame 88, so that when the latter is drawn back it falls by gravity sufficiently to hold the brush 87 out of contact with the stamp-head 74 and the shearing-bar 69. Disarrangement of the brush-hairs when contacting with the fixed guide-plate 110 is avoided by a curve in the movable guide-plate 111, (shown in Figs. II and III,) which during their forward movement causes the hairs to assume an inward oblique position at the moment of contact. The levers 108 to project forward and retract the brush-frame 88 and the movable guiding-plate 111 to produce the vertical movement of the brush, acting in conjunction, draw back and moisten the brush on the wick 89, raise and project it forward over the face of the stamp 68, and retract it again; but these motions are not regular. The range and pause of the lever 118 to actuate the guide-plate 111 have



been described, as shown in Figs. XV and XVI, also in Fig. II, and the levers 108 require a similar modified movement and a pause produced by the following devices: The  
 5 cranks 102 and 103 on the ends of cross-shaft 100, (seen in Fig. XVII,) it will be observed, are of different form, as shown in Figs. I and II. That in Fig. I, through which action is im-  
 10 parted to the shaft 100 by the link 104, is provided with a throat 123, in which moves the stud 124 in the link 104. When this link is depressed, the stud 124 slides along the face  
 15 of the crank 102 at 123, producing a pause in the levers 108, thereby giving the mechanism for raising the brush out of the water-pan the required time to perform its functions, it being necessary that the brush-frame 88 should  
 20 be in a horizontal position before being affected by the bell-cranks 108, and then turns the crank 102 to the position shown in Fig. III. The stud 124 then slides along the ver-  
 25 tical face 125, producing a pause in the movement of the levers 108 and the brush-frame 88, while the stamp 68 is cut off and applied on the letter 70 by the stamp-head 74 passing  
 30 down through the open brush-frame 88 to the letter 70. When the stamp 68 has been severed and applied on the letter 70 and the main lever 9 is again raised, no motion of the  
 35 levers 108 or of the brush-frame 88 takes place until the stamp-head 74 rises above the plane in which the brush-frame 88 moves. Then the stud 124, after passing the face 125 on the  
 40 crank 102, comes in contact with the face 123 and turns the shaft 100 to the position shown in Fig. I, withdrawing the brush-frame 88 to the position shown in Fig. II.

A fixed brush 127 is provided to remove any moisture on the bottom of the brush-frame 88  
 40 as it is projected forward, the water therefrom draining down into the trough or box 90. The latter is provided with a recess or chamber 128, into which the brush can descend, as in Fig. II, without coming in contact with the  
 45 main body of water therein and will be wetted only by the wick 89 on its upward movement. A guard-plate 145 is provided to prevent water from spilling out of the box 90 into the case 15 if the machine is decanted in a  
 50 backward direction.

To prevent the brush 87 from carrying forward more water than is required for moistening the stamp 68, I provide a wiping-bail 129. (Shown in Fig. XIV.) This bail is piv-  
 55 oted at each side in the plates 7 and 8 and rests by gravity on top of the brush-frame 88, so that when the brush rises, as from its position in Fig. II, the bail 129 passes over the  
 60 brush 87 in one direction and when the brush moves forward passes again over it in the opposite direction, removing surplus water from the brush.

To remove the brush-frame 88 from the path of the water-box 90 when the latter is to be  
 65 drawn out or replaced, I provide tripping devices, as shown in Fig. I, consisting of a lever 130, pivoted at 132 and moved by a stud

133 in the side of the water-box 90. In the lower end of the lever 130 is a pin 134, that projects through a curved slot 135 in the side  
 70 plate 7 and engages a projecting stud 137, extending rearward from the brush-frame 88. When the water-box 90 is run into its place, as in Fig. I, the pin 133 engages the lever 130  
 75 and the pin 134 is raised clear of the stud or lug 137 on the brush-frame 88; but when the water-box 90 is withdrawn the spring 136, acting on the lever 130, depresses the pin 134, which strikes on the lug 137 and raises  
 80 the brush-frame 88 to a horizontal position clear of the water-box 90. On again inserting the water-box 90 the lever 130 moves into the position seen in Figs. I and III, permitting  
 85 the brush-frame 88 to resume the position shown in Fig. II. This clears the box 90 for insertion or removal.

To fasten the water-box 90, I employ a hinged detent 138, having a notch 139, that engages the rear end of the box 90 and is released by  
 90 pressing upward the ball 40, that can be reached by the operator, as shown in Fig. I.

In applying stamps to letters when two are required I provide a movable gage 142, that slides on a bar 143, as shown in Figs. VIII and IX, a screw or stop 144 determining the  
 95 distance to which the gage 142 and the letter 70 are moved when a second stamp is applied.

Having thus explained the nature and objects of my invention, and the manner of applying the same, what I claim as new, and de-  
 100 sire to secure by Letters Patent, is—

1. In a stamp-affixing machine, a pivoted spring-raised main operating-lever, a vertically-moving stem, having a stamp-affixing  
 105 head, a plunger having sliding engagement with said stem, depressed by said lever, a cutting-blade on said stem for severing the stamps, a spring to raise the said stem, and means for successively advancing and moistening the stamps, connected to and operated  
 110 by said main operating-lever, substantially as specified.

2. In a stamp-affixing machine, a pivoted spring-raised main operating-lever, a vertically-moving hollow stem, having a stamp-  
 115 affixing head and a severing-blade, a separate spring to raise said hollow stem, a plunger sliding within said hollow stem, said plunger connected to and operated by said pivoted main operating-lever, and means for suc-  
 120 cessively advancing and moistening the stamps, actuated by said main operating-lever, substantially as specified.

3. In a stamp-affixing machine, a hollow main frame or base for supporting the oper-  
 125 ative parts of the machine, having platen 1, rearward extensions 2, standard 3, detachable top member 4, side plates 7, 8, brackets 19, and case 15, at rear, substantially as specified.

4. In a stamp-affixing machine, a main frame or base, having platen 1, standard 3, detachable top member 4, side plates 7, 8, brackets 19, and case 15 at rear, in combina-  
 130



tion with a main operating spring-raised lever pivoted to said top member 4, and devices sustained on said base connected to said lever for successively advancing, moistening, severing and affixing the stamps borne in said case, by the movement of said lever, substantially as specified.

5. In a stamp-affixing machine, a pivoted main operating-lever, a spring to raise the same after it is depressed, means for advancing the stamps in succession, means for moistening the stamps in succession, a vertically-moving spring-supported stem in sliding connection with said lever, and depressible thereby, means for severing and affixing the stamps, and links between the main operating-lever and the mechanisms for advancing and moistening the stamps, substantially as specified.

6. In a stamp-affixing machine, a pivoted main operating-lever, means for severing and affixing the stamps, operated by said main lever, a holder for a coiled ribbon of stamps, rollers to advance the stamps, a friction-clutch for operating said rollers a determinate distance, pawl-lever 35, adjusting-screw 39, link 30, pivoted arm 43, and spring 45, substantially as specified.

7. In a stamp-affixing machine, a holder for a coiled ribbon of stamps, rollers with contacting bands between which the stamps are advanced, and means to operate said rollers intermittently, in combination with a gripping mechanism, nipping the ribbon of stamps intermittently at the lines of perforation, and means for operating said gripping mechanism and said advancing mechanism in unison, substantially as specified.

8. In a stamp-affixing machine, a pivoted main operating-lever, means for severing and affixing the stamps, operated by said main lever, friction-rollers between which the stamps are advanced, a friction-clutch to turn said rollers, a link from said friction-clutch to said main operating-lever whereby said clutch is operated intermittently, a stop-screw 39, and a pivoted spring-arm 43, between said link and said operating-lever, whereby the range of movement of the clutch is limited relatively to that of the operating-lever, substantially as specified.

9. In a stamp-affixing machine, a pivoted main operating-lever, a holder for a series of connected stamps, friction-rollers between which said stamps are advanced, a friction-clutch to turn said rollers intermittently, a link connection from said clutch to said main operating-lever, a pivoted and elastically-yielding arm between said clutch and said main operating-lever, a stop 39, and means to disengage the friction-clutch to permit the friction-rollers to be turned by hand, substantially as specified.

10. In a stamp-affixing machine, a pivoted main operating-lever, means for intermittently advancing, moistening, severing and affixing a line of stamps in succession, said means all connected with and operated by

said main operating-lever, a fixed angular bar 59, and a gripper 54, between which and said angular bar the strip of stamps passes, said gripper being intermittently held out of operation by the main operating-lever, and allowed to press said strip at intervals to bend the same at the weak lines of perforation, substantially as specified.

11. In a stamp-affixing machine, a pivoted main operating-lever, a spring to raise the same, a vertically-moving hollow stem, a spring to raise said stem, a plunger in sliding engagement with said hollow stem connected with said main lever, and a locking device engaging with said hollow stem and with the plunger for holding the latter and the main lever in the raised and inoperative position to guard against accidental movements, substantially as specified.

12. In a stamp-affixing machine, a pivotally-mounted sliding frame, a moistening-brush on the extremity thereof, bell-crank levers 108 connected with the pivoted frame by slotted connections, links 46, crank-arms 102, 103, link 104, main operating-lever 9, and means engaging link 104 to produce a pause in the movement of said frame and brush after the latter has passed over the adhesive face of the stamp, substantially as specified.

13. In a stamp-affixing machine, a pivotally-mounted sliding frame, a moistening-brush on the extremity thereof, a pivoted main operating-lever, means to advance and retract said sliding frame parallel with the face of the stamps by the movement of the operating-lever, fixed guide-plate 110, pivoted guide-plate 111, means for moving said guide-plate and guiding-roller 109 on the rear of said pivoted and sliding frame, whereby the depression and elevation of the latter are effected, substantially as specified.

14. In a stamp-affixing machine, a pivoted main operating-lever, a vertically-moving stamp-affixing head operated thereby, a pivotally-mounted sliding frame, a moistening-brush on the extremity thereof, slotted bell-crank levers 108 to move said sliding frame horizontally, links 46, cross-shaft 100, link 104, stud 124, crank-arm 103, and crank-arm 102 having throat 123 and face 125, for effecting a pause in the movement of the brush-frame during the affixing of a stamp, substantially as specified.

15. In a stamp-affixing machine, a pivotally-mounted sliding frame, a moistening-brush on the extremity thereof, means to move said frame parallel to the face of the stamp to be moistened and to cause a pause in said movement, fixed guide-plate 110, pivoted guide-plate 111, means to move said pivoted guide-plate at intervals, and a guiding-roller on the rear end of the pivoted brush-frame, moving on the guide-plates 110, 111, whereby the rising-and-falling movements of the brush-frame are effected, substantially as specified.

16. In a stamp-affixing machine, a pivoted



main operating-lever, a pivotally-mounted sliding frame, a moistening-brush on the extremity thereof, means to move said sliding frame horizontally by connection with said main operating-lever, guide-plate 110, pivoted guide-plate 111, means to operate said pivoted guide-plate by connection with said main operating-lever, guide-roller 109 coöperating with guide-plates 110, 111, to produce rising- and-falling movements of the brush-frame, and a saturated wick 89 in the rising path of the brush 87, substantially as specified.

17. In a stamp-affixing machine, a pivoted main operating-lever, a pivotally-mounted horizontally-sliding brush-frame, with brush on the extremity thereof, slotted bell-crank levers 108, links 46, link 104, lost-motion device 102, 103, means to produce a rising-and-falling movement of the pivoted brush-frame, a saturated wick in the path of the moistening-brush, and means to supply said wick with moisture, substantially as specified.

18. In a stamp-affixing machine, a pivoted main operating-lever, a pivotally-mounted sliding brush-frame, with brush on the extremity thereof, means for giving the brush-frame a horizontal reciprocating movement and an intermittent rising-and-falling movement, a saturated wick projecting into the rising path of the brush to moisten the latter, and a fixed brush 127 to remove moisture from the bottom of the brush-frame as it is projected forward, substantially as specified.

19. In a stamp-affixing machine, a main operating-lever 9, a stamp-moistening brush mounted on a pivoted frame 88 and connected with the main operating-lever by devices to move the brush and frame in a horizontal plane, means to raise, lower and guide the frame and brush vertically and in combination therewith a hinged wiping bail or bar 129 adapted to pass over the brush each way and remove surplus water therefrom, substantially as specified.

20. In a stamp-affixing machine, a pivotally-mounted sliding brush-frame, with brush on the extremity thereof, means for giving the said frame a horizontally-reciprocating movement and an intermittent rising-and-falling movement, a sliding water-box extending beneath the said brush-frame, a recess in the top of said water-box into which the brush-frame descends, wick 89 projecting into said recess, and means for automatically raising said brush-frame out of said recess by the movement of the box when said box is drawn out, substantially as specified.

21. In a stamp-affixing machine, the sliding and removable water-box 90, having recess 128, pin 133, bell-crank lever 130, spring 136, pin 134, sliding and rising-and-falling brush-frame 88, and lug 137 on brush-frame, whereby said brush-frame is automatically lifted out of the recess when the water-box is drawn out for replenishment, substantially as specified.

22. In a stamp-affixing machine, a pivoted

main operating-lever, a hollow stem 73 provided with a stamp-head, a spring to raise said hollow stem, a plunger in sliding engagement with said hollow stem connected to said main operating-lever, a fixed shearing-bar 69, a movable cutter 29 on hollow stem 73, and means for intermittently advancing the stamps by the movement of the said operating-lever, substantially as specified.

23. In a stamp-affixing machine, the main operating-lever 9, the vertically-moving stem 73 mounted in a fixed bearing 75 at the top, a half-bearing 77 at the bottom, a roller 78 bearing elastically upon the stem 73 pressing it into the bearing 77 to prevent lost motion therein, substantially in the manner specified.

24. In a stamp-affixing machine, a moistening device and means for actuating it comprising the pivoted guide-plate 111, link 120, slotted link 113, pin 115, pivoted lever 118, having oblique extension 122, engaged by pin 115, and pivoted main operating-lever 9, whereby the pivoted guide-plate pauses in its movement relatively to that of the main operating-lever, substantially as specified.

25. In a stamp-affixing machine, the combination of pivoted main operating-lever 9, link 104, oscillating crank-arm 102, provided with throat 123 and face 125, pin 124, coöperating with said arm 102, links 46, bell-crank levers 108, and sliding pivoted brush-frame 88, substantially as and for the purpose specified.

26. In a stamp-affixing machine, the combination of the driving-pulley 20, roller 23, friction-pulley 22, friction-roller 24, the springs 47, 49, bands 28, the independent frame formed by the guide and side plates 25, 27, and an automatic stopping and locking mechanism for controlling the stamp-feed, substantially as specified.

27. In a stamp-affixing machine, an automatic stopping and locking mechanism for automatically nipping a ribbon of stamps intermittently at the lines of perforation, in combination with means for intermittently unlocking said mechanism and means for forwarding the ribbon of stamps, substantially as specified.

28. In a stamp-affixing machine, a main operating-lever, mechanism for conveying and advancing a ribbon of stamps, a friction-clutch for intermittently imparting motion to said mechanism, and an elastically-yielding mechanism connecting said clutch with said main operating-lever, substantially as specified.

29. In a stamp-affixing machine, an independent brush-frame, a moistening-brush mounted on one end thereof, normally out of contact with the brush-wetting device, a guide on the other extremity of said frame, a vertically-reciprocating stamp-affixing head, a shearing-cutter mounted thereon and means connected with said pivoted main lever and loosely engaging said independent brush-



frame, whereby the said moistening-brush is raised and wetted, projected forward, retarded, retracted, kept out of contact with the stamp-affixing head when retracting and again lowered, the stamp-affixing head and shearing-cutter being in their normal position and at rest during the various movements of the said independent brush-frame and brush, substantially as specified.

30. In a stamp-affixing machine, a pivoted main operating-lever, an independent brush-frame with a moistening-brush on the extremity thereof, mechanism connected to said main operating-lever and loosely engaging said brush-frame whereby the latter is operatively controlled, means for giving the

brush a rising movement past the wick, a water-box extending beneath said independent brush-frame, a partially-submerged wick mounted in said water-box with the tip in an elevated position, the water supplied to said tip by capillary attraction, said contacting tip projecting into the rising path of the moistening-brush, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADOLPH H. F. SCHAAR.

Witnesses:

ALFRED A. ENQUIST,  
ELMER WICKES.